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ABSTRACT

Papers from the International Conference on Mathematics Education are organized into four parts. Part 1, "The Goal of Mathematics for All," includes: "Will Everybody Ever Count?" (Steen); "Mathematics Education: An Industrial View" (McHenry); "The Popularization of Mathematics" (Kahane); "Is There a Real Chance for 'Mathematics and Science for All Americans'?" (Keitel); "Higher Order (Un-)Teaching" (de Lange); "Mathematics for All Students: Technology and the Power of Visualization" (Demana & Waits); "MASS-MATHICS: A Curriculum for Non-College Bound Students in Israel" (Movshovitz-Hadar); and "Equity, Assessment, and Thinking Mathematically: Principles for the Design of Model-Eliciting Activities" (Lesh, Hoover, & Kelly). Part 2, "The Process and Evaluation of Reform Efforts," includes: "America Is Likewise Bestirring Herself: A Century of Mathematics Education As Viewed from the United States" (Kilpatrick); "The Mathematical Sciences Education Board: Preparing for the Twenty-first Century" (Rosen); "What Does It Mean to Be Modern in Mathematics Education?" (D'Ambrosio); "Reflections on the Mathematics Assessments of the National Assessment of Educational Progress" (Lindquist); "Certifying Accomplishments in Mathematics: The New Standards Examining System" (Resnick, Briars, & Lesgold); and "Assessing Mathematics: Enhancing Understanding" (Dossey). Part 3, "The Content of Reform," includes: "Toward a World Class Curriculum in the United States" (Romberg); "What Are the Goods and How Do We Deliver Them?" (Sally, Jr.); "Investigations in Number, Data, and Space: A New Elementary Curriculum" (Russell); "The UCSMP Elementary Mathematics Specialist Project" (Sconiers); "Reflections on Inservice Work with U.S. Teachers of Mathematics" (Becker); "The Effects of Technology on the Mathematics Curriculum: What Goes In? What Goes Out?" (Ellis);

"Computers, Understanding of Concepts, and Problem Solving" (Bjork & Brolin); "Getting Students to Function in Algebra" (Schwartz); "Statistics in the Mathematics Curriculum: Why and What?" (Moore); "Algorithms in School Mathematics: Why, What and How?" (Johnson); and "Applications and Modeling in School Mathematics--Directions for Future Development" (Niss). Part 4, "International Comparisons," includes: "The Third International Mathematics and Science Study: Issues and Questions" (Robitaille); "School Mathematics in the U.S. and U.K.: Similarities and Differences" (Johnson); "School Mathematics in Japan and the U.S.: Focusing on Recent Trends in Elementary and Lower Secondary School" (Miwa); "Results of U.S.-Japan Cross-national Research on Students' Problem Solving Behaviors" (Becker); "Some Puzzling Questions Arising from Mathematics Education in China" (Zhang); "Competition and Cooperation in School Mathematics" (Usiskin). Appendices contain lists of the conference participants, speakers, and presiders. (MKR)

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